



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

646.9711

Job Sheet 171175



Part No: 646.9711

Job Qty: 145 ea

Part Name: Blade

100 ea



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 1/29/18

Job Tracking No:

Created By: Michelle Gagnon-Donovan

Due Date: 2/28/18

Description:

Type: Stock

Note: DWG REV D2 SHEET 5 IPP REV:A NEW ISSUE 12/09/24 JFS VERIFY BY:DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	145 Ea	2/19/18	2/19/18	0.00	0.00	Start Up Machining-1		
100	Bandsaw	145 pcs	2/19/18	2/19/18	0.00	4.52	Bandsaw1		
110	CNC Vertical Machining	145 pcs	2/27/18	2/27/18	0.13	145.00	HAAS1-1		
120	QC	145 pcs	2/27/18	2/27/18	0.00	0.00	QC2 Machining-1		
130	QC	145 pcs	2/27/18	2/27/18	0.00	0.00	QC8 Machining-1		
140	Outsource	145 pcs	2/27/18	2/27/18			MEI001-VC P0039340		
150	Packaging	145 pcs	2/27/18	2/27/18	0.00	0.00	Packaging2		
155	QC	145 pcs	2/27/18	2/27/18	0.00	0.00	QC8		
160	SprayPaint	145 pcs	2/28/18	2/28/18	0.00	4.83	Spray Paint		
170	QC	145 pcs	2/28/18	2/28/18	0.00	0.00	QC14		
180	Packaging	145 pcs	2/28/18	2/28/18	0.00	0.00	Packaging3-1		
190	QC21-SA	145 Ea	2/28/18	2/28/18	0.00	0.00	QC21		

Part Op 100 - Cut Blank at 4.625"

Descriptions: 110 - 1-Machine per folio FB135

140 - PO to Metcor: FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS PART ARE MADE FROM AISI A2

TOOL STEEL PLEASE NOTE: DETAIL C OF C REQUIRED

160 - ***THIN COAT OF PRIMER*** PRIME AS PER DWG, SEE NOTE #4

138747

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MSTEEL-A2-B0.500X1.250	AISI A2 Tool Steel Bar, 0.500 X 1.250	55.9700 ft (.386 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MSTEEL-A2-B0.500X1.250	56	74	0



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 813 832-8200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S050304



Part: 646.9711

Job No: 171175

Serial No/Batch: S050304

Revision:

Inspector:

Date: 03/12/18

Part Specifications					
Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Blade	0.340Inches + 0.000 - 0.005	0.340 0.335		
2	Blade	0.177Inches + 0.005 - 0.001	0.182 0.176		
3	Blade	3.200Inches ± 0.005	3.205 3.195		
4	Blade	0.600Inches ± 0.005	0.605 0.595		
5	Blade	0.985Inches ± 0.005	0.990 0.980		
6	Blade	2.400Inches ± 0.005	2.405 2.395		
7	Blade	1.200Inches ± 0.005	1.205 1.195		
8	Blade	0.250Inches ± 0.005	0.255 0.245		
9	Blade	37.2Angle ± 0.5	37.7 36.7		
10	Blade	0.290Inches ± 0.010	0.300 0.280		
11	Blade	30.0Angle ± 0.5	30.5 29.5		

Plex 1/29/18 4:16 PM Dart.Gagnon.Michelle

DQA: _____ Date: _____

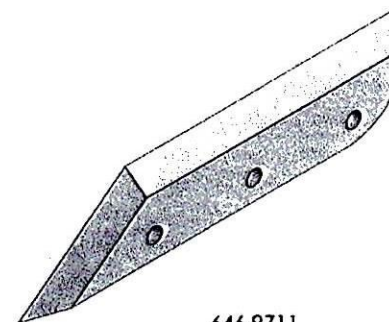


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

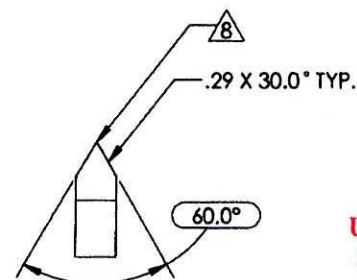
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					



Technical drawing of a mechanical part with the following dimensions and features:

- Top surface: $3 \times \phi .177$ THRU
- Top surface width: 3.200
- Top surface thickness: .702
- Top surface angle: 37.2°
- Top surface thickness: .250
- Top surface width: 1.500, 1.200, 1.200, .600
- Top surface radius: R.750
- Top surface height: .691, .750, .985
- Top surface length: (4.500)



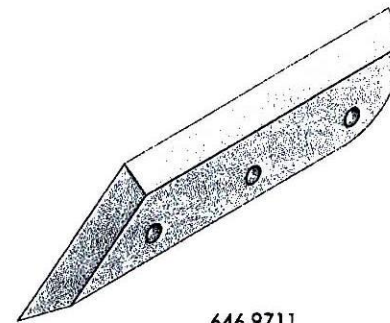
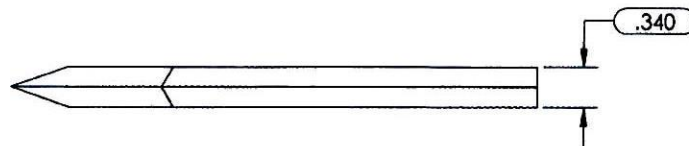
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 171175

JAN 31 2018

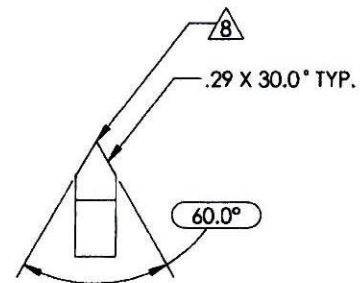
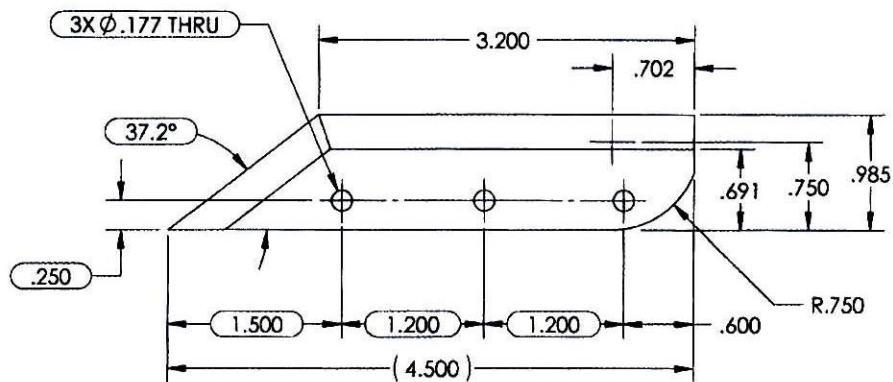
646.9711

ORIGINAL DATE RUC-DAL-DA 05-29-09	 DART AEROSPACE AFCON INDUSTRIES INC. 800 DART AIRCRAFT	3030 ENTERPRISE CT SUITE A VISTA, CA 92081 (760)-724-5300
BY R. ROMANO R. MAYO		
DRAWING APPROVAL BY S. L. MAYO DATE 05-29-09 CONTRACT No.		
CUTTER SUB ASSEMBLY		
SHEET OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES 1. TOLERANCES ARE: 2. FRACTIONAL 1/16 3. DECIMAL 1.01 4. ANGLES 1.500 5. HOLE 1.500		
REV	CAUSE CODE	QWG, MO.
0	07/02/26	646.9700
SCALE NONE		SHEET 5 OF 7

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES DBA DART AEROSPACE. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES DBA DART AEROSPACE IS PROHIBITED.



646.9711



646.9711

ORIGINAL DATE: 05-29-09		DRAWN BY: K. BOIANO		CHECKED BY: P. BRAVO	
DRAWING APPROVAL: P. BRAVO		CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLAC. DECIMALS ±.01 3 PLAC. DECIMALS ±.005 ANGLES ± 3°					
SHEET: 8		CAGE CODE: 07M26	DWG. NO.: 646.9700		REV.: D
SCALE: NONE		SHEET: 5 OF 7			

DART 3030 ENTERPRISE CT., SUITE A
AEROSPACE VISTA, CA 92081
APICAL INDUSTRIES INC. DBA DART AEROSPACE (760) 724-6300

CUTTER SUB ASSEMBLY

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
326369	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K8A 1K7

1

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
39376	N/A	A2		

SPÉCIFICATIONS DU PROCÉDÉ

processing specifications

VAC HARDEN

HARDEN AND TEMPER

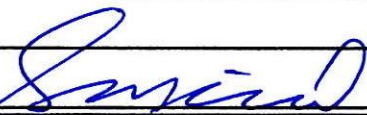
EXIGENCE / requirement	SPÉCIFICATIONS / specified	TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results
HARDNESS	58 - 62 HRC	8	60 - 62 HRC

QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description
132	37	646.3315 (16) 646.3315 JOB. 171983 REF S051528 (16) 646.3316 JOB. 171984 REF S053063 (100) 646.9711 JOB. 171175 REF S050304 1 BOITE DE CARTON

9/4/18

COMMENTAIRES / comments

APPROUVÉ par / Approved by:



DATE: 2018-04-04

APPROUVÉ

14-00000

SECRET



DATE: 10-10-64

SECRET

1. The purpose of this document is to provide information regarding the activities of the [redacted] organization, which is engaged in the development and production of [redacted] weapons and military equipment.

2. The [redacted] organization is currently operating in the [redacted] region, where it has established a network of [redacted] agents and informants. These individuals are responsible for gathering intelligence and coordinating the activities of the organization.

3. The [redacted] organization has been identified as a threat to the national security of the United States, and its activities are being closely monitored by the [redacted] intelligence community. It is believed that the organization is capable of conducting large-scale operations and has the potential to cause significant damage to the United States.

4. The [redacted] organization is currently engaged in the development of a new type of [redacted] weapon, which is believed to be more powerful and effective than previous models. This weapon is being tested in the [redacted] region, and it is believed that it will be ready for production within the next few years.

5. The [redacted] organization is also engaged in the production of [redacted] military equipment, including [redacted] tanks, [redacted] aircraft, and [redacted] missiles. This equipment is being sold to various countries in the [redacted] region, and it is believed that it is being used in a variety of military operations.

6. The [redacted] organization is currently operating in a clandestine manner, and its activities are being kept secret from the public. It is believed that the organization is using a variety of methods to maintain its secrecy, including the use of [redacted] code names, [redacted] aliases, and [redacted] false identities.

7. The [redacted] organization is currently engaged in a variety of activities, including the recruitment of new members, the training of existing members, and the coordination of its operations. It is believed that the organization is capable of conducting large-scale operations and has the potential to cause significant damage to the United States.

8. The [redacted] organization is currently operating in the [redacted] region, where it has established a network of [redacted] agents and informants. These individuals are responsible for gathering intelligence and coordinating the activities of the organization.

9. The [redacted] organization has been identified as a threat to the national security of the United States, and its activities are being closely monitored by the [redacted] intelligence community. It is believed that the organization is capable of conducting large-scale operations and has the potential to cause significant damage to the United States.

10. The [redacted] organization is currently engaged in the development of a new type of [redacted] weapon, which is believed to be more powerful and effective than previous models. This weapon is being tested in the [redacted] region, and it is believed that it will be ready for production within the next few years.

SECRET

1. The purpose of this document is to provide information regarding the activities of the [redacted] organization, which is engaged in the development and production of [redacted] weapons and military equipment.

SECRET

SECRET

SECRET

SECRET

SECRET

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Détaillé

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
326369	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
39376	N/A	A2		
SPÉCIFICATIONS DU PROCÉDÉ processing specifications				
VAC HARDEN				
HARDEN AND TEMPER				
EXIGENCE / requirement	SPÉCIFICATIONS / specified TESTS EXÉCUTÉS / performed		RÉSULTATS DE TESTS / results	
HARDNESS	58 - 62 HRC		8	60 - 62 HRC
QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description		
132	37	646.3315 (16) 646.3315 JOB. 171983 REF S051528 (16) 646.3316 JOB. 171984 REF S053063 (100) 646.9711 JOB. 171175 REF S050304 1 BOITE DE CARTON		

COMMENTAIRES / comments

VAC HARDEN 1800F, 1:30 HR
DOUBLE TEMPER 400F, 2 HRS

Heat treatment (HT) was performed with equipment that meets the requirements of requested specification. All HT operations were performed in compliance with the required HT specification and all verifications have been performed and documented. No unauthorized changes were performed in regards to the HT. We certify that the material was manufactured, sampled, tested and inspected in accordance with the material specification and the purchase order and was found to meet the requirements.

This document and any attached documents may contain confidential or proprietary information and may be subject to export control laws and regulations. If you are not the intended recipient, you are notified that any dissemination, copying of this e-mail and any attachments thereto or use of their contents by any means whatsoever is strictly prohibited. Unauthorized export or re-export is prohibited.

Le traitement thermique (TT) a été fait en utilisant des équipements en conformité avec la spécification demandée. Toutes les opérations de TT ont été faites en conformité avec les requis de la spécification demandée et toutes les vérifications et les tests demandés ont été faites et documentés. Aucun changement n'a été faite par rapport au TT. On certifie que le matériel a été fabriqué, échantillonné, testé et inspecté en accord avec les spécifications du matériel et le bon

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450 491-6454

Certificat de Conformité Détail

Detailed Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
326369	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

Certifie que le matériel a été fabriqué, échantillonné, testé et inspecté en accord avec les spécifications du matériel et le bon de commande et le matériel rencontre les exigences spécifiées.

Ce document et les documents qui lui sont joints peuvent contenir des informations confidentielles, être soumis aux réglementations relatives au contrôle des exportations ou ayant un caractère privé. S'ils ne vous sont pas destinés, nous vous signalons qu'il est strictement interdit de les divulguer, de les reproduire ou d'en utiliser de quelque manière que ce soit le contenu. Toute exportation ou réexportation non autorisée est interdite.

APPROUVÉ par / Approved by:

Isabel Otero
QA Technician

DATE: 2018-04-05



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO039376

Supplier: MEI001-VC
Metcor Inc.
560 Boul. Arthur Sauve
Saint-Eustache
QC
J7R 5A8 Canada
Phone: 450 473 1884
Fax: 450 491 5498

PO No: PO039376
PO Date: 3/21/18
Due Date: 4/16/18
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Tsimiklis, ChrisoulaPhone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	171984	646.3316	Blade HEAT TREAT AS PER DWG 646.3300 FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS PART ARE MADE FROM AISI A2 TOOL STEEL PLEASE NOTE: DETAIL C OF C REQUIRED	Firmed	4/16/18	16 pcs	0 pcs	16 pcs	\$2.36742424/pcs	\$37.88
						✓ 16x		AT 18/04/18		
2	171175	646.9711	Blade PO to Metcor: FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS PART ARE MADE FROM AISI A2 TOOL STEEL PLEASE NOTE: DETAIL C OF C REQUIRED	Firmed	4/16/18	100 pcs	0 pcs	100 pcs	\$2.36742424/pcs	\$236.74
						✓ 100x		AT 18/04/18		
3	171983	646.3315	Blade HEAT TREAT AS PER DWG 646.3300 FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS PART ARE MADE FROM AISI A2 TOOL STEEL PLEASE NOTE: DETAIL C OF C REQUIRED	Firmed	4/16/18	16 pcs	0 pcs	16 pcs	\$2.36742424/pcs	\$37.88
						✓ 16x		AT 18/04/18		

DAS
11
9-89